

## Southern Appalachian Creature Feature Podcasts

### Freshwater Jellyfish

Good morning and welcome to the Southern Appalachian Creature. This week we'll look at freshwater jellyfish in the Southern Appalachians.

Though it's been six months since she was stung, our two-year old daughter identifies any image of a jellyfish as an "ouchee" and is quick to point out where she was stung on her leg. It wouldn't please her to learn jellyfish are floating around lakes a short drive from our home.

Lakes James, Norman, Wylie, Santeetlah, Fontana Lake, ponds in Weaverville, Fairview, and at Warren Wilson College - these are all places where the freshwater jellyfish, *Craspedacusta sowerbii*, or as the Chinese call it, the peach blossom fish, has been found. It's not a true jellyfish, but rather a hydrozoa, one of a group of animals that includes the Portuguese man o' war and the water hydra.

The freshwater jellyfish can exist in one of five different body forms, with one, called the hydromedusa, resembling what we commonly think of as a jellyfish, albeit as small one, coming in at a half to two and half centimeters across. In late summer or early fall warm water temperatures trigger the animal to morph into the hydromedusa form, where it can be seen drifting in the water column. It can also live as a polyp on the river or lake bottom, or as what's called a podocyst, a small group of cells encased in a hard shell – a form it takes to get through periods of cold or little food.

Like real jellyfish, freshwater jellyfish are predators, feeding on plankton. They do have tentacles complete with stingers, though they aren't able to penetrate human skin.

The animal is native to China's Yangtze River where it lives in the river's pools and backwaters. It was first documented outside of China in the water lily tanks at London's Regents Park in 1880 and today is commonly found in Europe, Asia, North and South America, and Australia. Its spread around the globe is linked to the stocking of fish, like tilapia, the movement of aquatic plants, like water hyacinth, and the migration of birds, all of which can inadvertently carry the polyp and podocyst forms of the animal.

Although the freshwater jellyfish has spread far beyond its range, little is known about its impacts on aquatic ecosystems. There's concern that outbreaks could deplete the dissolved oxygen needed by aquatic animals like fish and mussels, as well as concern about impacts to plankton communities, which are important foundations for aquatic food webs.

The jellyfish lives in slow or still waters, so in the Southern Appalachians it's found in ponds and reservoirs, and hasn't been found in flowing streams.

For WNCW and the U.S. Fish & Wildlife Service, this is Gary Peeples.